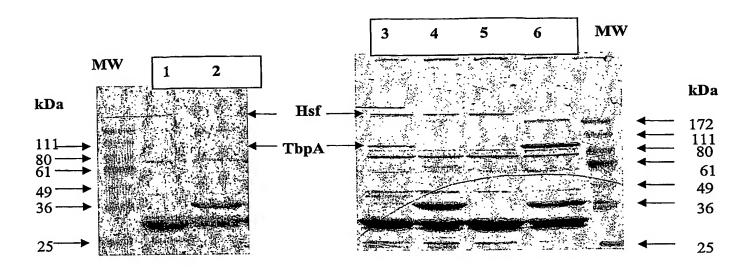
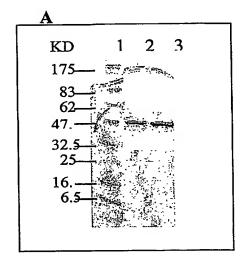
Figure 1



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Figure 2



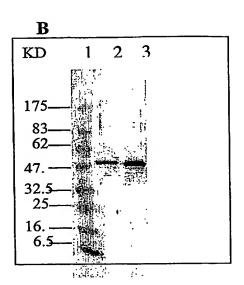


Figure 3

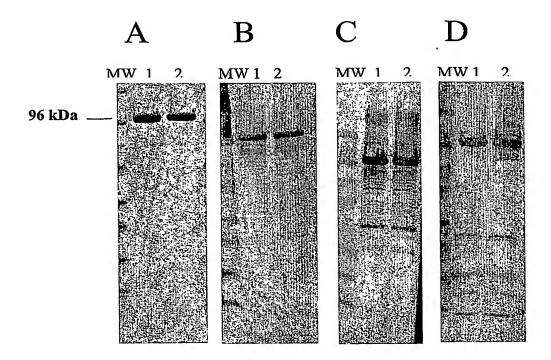
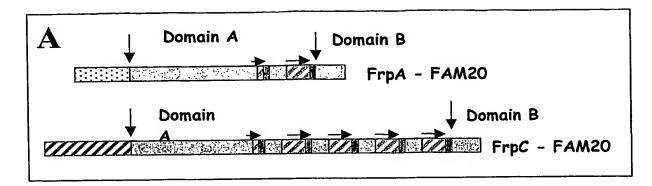


Figure 4



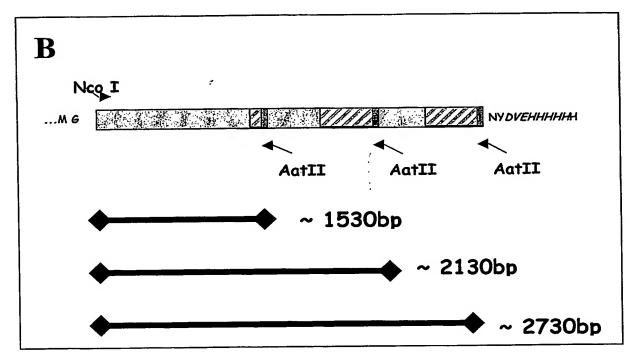
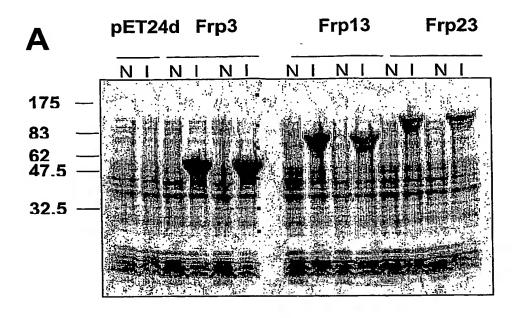


Figure 5



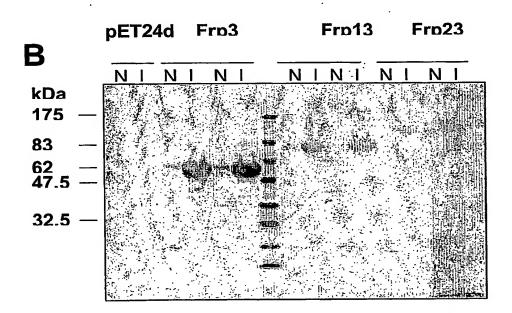




Figure 6

5**′** – ATGAATAAAGGTTTACATCGCATTATCTTTAGTAAAAAGCACAGCACCATGGTTGCAGTAGCCGAAACT GCCAACAGCCAGGGCAAAGGTAAACAGGCAGGCAGTTCGGTTTCTGTTTCACTGAAAACTTCAGGCGAC $\tt CTTTGCGGCAAACTCAAAACCACCCTTAAAACTTTGGTCTGCTCTTTGGTTTCCCTGAGTATGGTATTG$ CCTGCCCATGCCCAAATTACCACCGACAAATCAGCACCTAAAAACCAGCAGGTCGTTATCCTTAAAAACC AACACTGGTGCCCCCTTGGTGAATATCCAAACTCCGAATGGACGCGGATTGAGCCACAACCGCTATACG CAGTTTGATGTTGACAACAAGGGGCAGTGTTAAACAACGACCGTAACAATAATCCGTTTGTGGTCAAA GGCAGTGCGCAATTGATTTTGAACGAGGTACGCGGTACGGCTAGCAAACTCAACGGCATCGTTACCGTA GGCGGTCAAAAGGCCGACGTGATTATTGCCAACCCCAACGGCATTACCGTTAATGGCGGCGGCTTTAAA AATGTCGGTCGGGCATCTTAACTACCGGTGCGCCCCAAATCGGCAAAGACGGTGCACTGACAGGATTT GATGTGCGTCAAGGCACATTGACCGTAGGAGCAGCAGGTTGGAATGATAAAGGCGGAGCCGACTACACC GGGGTACTTGCTCGTGCAGTTGCTTTGCAGGGGAAATTACAGGGTAAAAACCTGGCGGTTTCTACCGGT CCTCAGAAAGTAGATTACGCCAGCGGCGAAATCAGTGCAGGTACGGCAGCGGGTACGAAACCGACTATT GCCCTTGATACTGCCGCACTGGGCGGTATGTACGCCGACAGCATCACACTGATTGCCAATGAAAAAGGC GAAAACAGCGGCCGCATCGCCACCACTGCCGACGGCACCGAAGCTTCACCGACTTATCTCTCCATCGAA ACCACCGAAAAAGGAGCGGCAGGCACATTTATCTCCAATGGTGGTCGGATCGAGAGCAAAGGCTTATTG $\tt GTTATTGAGACGGGAGAAGATATCAGCTTGCGTAACGGAGCCGTGGTGCAGAATAACGGCAGTCGCCCA$ GCTACCACGGTATTAAATGCTGGTCATAATTTGGTGATTGAGAGCAAAACTAATGTGAACAATGCCAAA ${\tt GGCCCGGCTACTCTGTCGGCCGACGGCCGTACCGTCATCAAGGAGGCCAGTATTCAGACTGGCACTACC}\ .$ GTATACAGTTCCAGCAAAGGCAACGCCGAATTAGGCAATAACACACGCATTACCGGGGCAGATGTTACC GTATTATCCAACGGCACCATCAGCAGTTCCGCCGTAATAGATGCCAAAGACACCGCCACACATCGAAGCA GGCAAACCGCTTTCTTTGGAAGCTTCAACAGTTACCTCCGATATCCGCTTAAACGGAGGCAGTATCAAG GGCGGCAAGCAGCTTGCTTTACTGGCAGACGATAACATTACTGCCAAAACTACCAATCTGAATACTCCC GGCAATCTGTATGTTCATACAGGTAAAGATCTGAATTTGAATGTTGATAAAGATTTGTCTGCCGCCAGC ATCCATTTGAAATCGGATAACGCTGCCCATATTACCGGCACCAGTAAAACCCTCACTGCCTCAAAAGAC ATGGGTGTGGAGGCAGGCTCGCTGAATGTTACCAATACCAATCTGCGTACCAACTCGGGTAATCTGCAC ATTCAGGCAGCCAAAGGCAATATTCAGCTTCGCAATACCAAGCTGAACGCAGCCAAGGCTCTCGAAACC ACCGCATTGCAGGCCAATATCGTTTCAGACGGCCTTCATGCTGTTTCTGCAGACGGTCATGTATCCTTA TTGGCCAACGGTAATGCCGACTTTACCGGTCACAATACCCTGACAGCCCAAGGCCGATGTCAATGCAGGA TCGGTTGGTAAAGGCCGTCTGAAAGCAGACAATACCAATATCACTTCATCTTCAGGAGATATTACGTTG ATCAAAAACAACGGTGGTAATGCCGACTTAAAAAACCTTAACGTCCATGCCAAAAGCGGGGCATTGAAC ATTCATTCCGACCGGGCATTGAGCATAGAAAATACCAAGCTGGAGTCTACCCATAATACGCATCTTAAT GCACAACACGAGCGGGTAACGCTCAACCAAGTAGATGCCTACGCACACCGTCATCTAAGCATTACCGGC AGCCAGATTTGGCAAAACGACAAACTGCCTTCTGCCAACAAGCTGGTGGCTAACGGTGTATTGGCACTC

AATGCGCGCTATTCCCAAATTGCCGACAACACCACGCTGAGAGCGGGTGCAATCAACCTTACTGCCGGT ACCGCCCTAGTCAAGCGCGGCAACATCAATTGGAGTACCGTTTCGACCAAAACTTTGGAAGATAATGCC GAATTAAAACCATTGGCCGGACGGCTGAATATTGAAGCAGGTAGCGGCACATTAACCATCGAACCTGCC ${\tt AACCGCATCAGTGCGCATACCGACCTGAGCATCAAAACAGGCGGAAAATTGCTGTTGTCTGCAAAAGGA}$ GGAAATGCAGGTGCGCCTAGTGCTCAAGTTTCCTCATTGGAAGCAAAAGGCAATATCCGTCTGGTTACA GGAGAAACAGATTTAAGAGGTTCTAAAATTACAGCCGGTAAAAACTTGGTTGTCGCCACCAAAGGC AAGTTGAATATCGAAGCCGTAAACAACTCATTCAGCAATTATTTTCCTACACAAAAAGCGGCTGAACTC ATTCCAACCCTGCAAGAAGAACGCGACCGTCTCGCTTTCTATATTCAAGCCATCAACAAGGAAGTTAAA GGTAAAAAACCCAAAGGCAAAGAATACCTGCAAGCCAAGCTTTCTGCACAAAATATTGACTTGATTTCC GCACAAGGCATCGAAATCAGCGGTTCCGATATTACCGCTTCCAAAAAACTGAACCTTCACGCCGCAGGC GTATTGCCAAAGGCAGATTCAGAGGCGGCTGCTATTCTGATTGACGGCATAACCGACCAATATGAA ATTGGCAAGCCCACCTACAAGAGTCACTACGACAAAGCTGCTCTGAACAAGCCTTCACGTTTGACCGGA CGTACAGGGGTAAGTATTCATGCAGCTGCGGCACTCGATGATGCACGTATTATTATCGGTGCATCCGAA ATCAAAGCTCCCTCAGGCAGCATAGACATCAAAGCCCATAGTGATATTGTACTGGAGGCTGGACAAAAC GATGCCTATACCTTCTTAAAAACCAAAGGTAAAAGCGGCAAAATCATCAGAAAAACCAAGTTTACCAGC GGCAACATCGAAGCTAATACCACCCGCTTCAATGCCCCTGCAGGTAAAGTTACCCTGGTTGCGGGTGAA GAGCTGCAACTGCTGGCAGAAGAAGGCATCCACAAGCACGAGTTGGATGTCCAAAAAAGCCGCCGCTTT ATCGGCATCAAGGTAGGCAAGAGCAATTACAGTAAAAACGAACTGAACGAAACCAAATTGCCTGTCCGC GTCGTCGCCCAAACTGCAGCCACCCGTTCAGGCTGGGATACCGTGCTCGAAGGTACCGAATTCAAAACC ACGCTGGCCGGTGCGGACATTCAGGCAGCTGTAGGCGAAAAAGCCCGTGCCGATGCGAAAATTATCCTC AAAGGCATTGTGAACCGTATCCAGTCGGAAGAAAAATTAGAAACCAACTCAACCGTATGGCAGAAACAG GCCGGACGCGCAGCACTATCGAAACGCTGAAACTGCCCAGCTTCGAAAGCCCTACTCCGCCCAAACTG ACCGCCCCGGTGGCTATATCGTCGACATTCCGAAAGGCAATTTGAAAACCGAAATCGAAAAGCTGGCC AAACAGCCCGAGTATGCCTATCTGAAACAGCTCCAAGTAGCGAAAAACACTAGTGGCCACCATCACCAT CACCATTA STOP -3'

Figure 7

E.coli BL 21 pET24-b / 20 h induction

French Press (Tris 50 mM/EDTA 5 mM, pH 8.0)

60° at 10000 rpm (JA10)

solubilize pellet in Pi 20 mM/urea 8M, pH7.0 1 H stirring at RT°

30' at 10000 rpm (JA10)

CEX on SP-Sepharose-XL Pi 20mM/Urea 8M; eluti&&on +/-120 mM NaCl

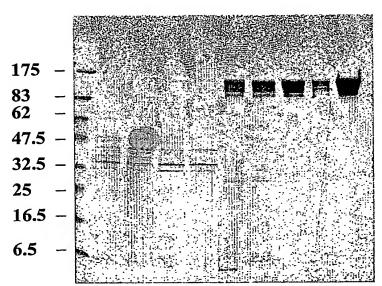
IMAC on Chelating Sepharose-FF – Cu⁺⁺ Pi 20mM/NaCl 0.5M/Urea 8M; elution +/-20 mM imidazole

GPC on Superdex S-200 (PBS pH6.8/arginine 0.5M)

sterile filtration

Purified bulk

B



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Figure 8 A

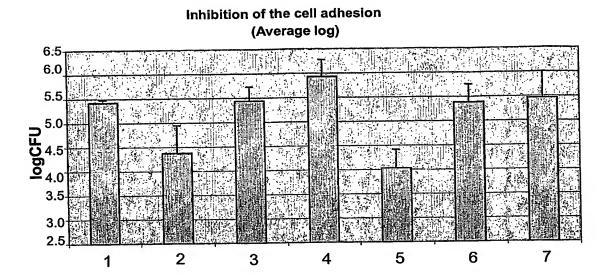


Figure 8 B

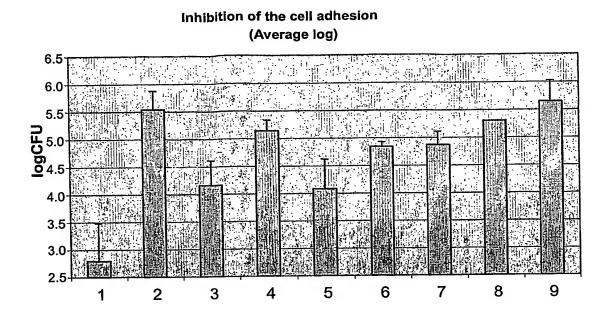
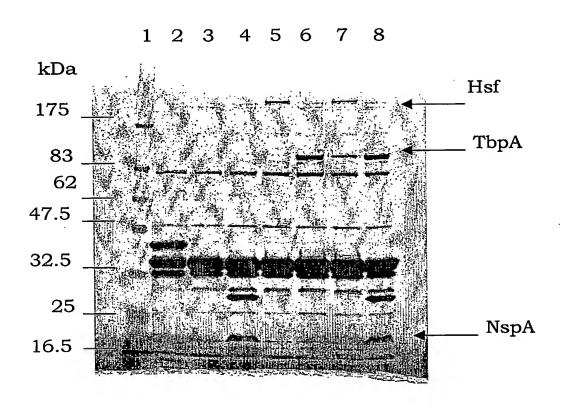


Figure 9



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